



GUIDELINE	
Sleep	
Scope (Staff):	Community health staff
Scope (Area):	CAHS-CH, WACHS

This document should be read in conjunction with this [DISCLAIMER](#)

Aim

To provide information on early childhood sleep and guidance for staff to undertake holistic assessments and care planning, for parents who have expressed concerns about their children’s sleeping behaviours.

Risk

Inadequate understanding of normal childhood sleep behaviours may result in inappropriate responses to sleep variations, which may lead to negative consequences for the child’s emotional and psychological wellbeing.

Background

Sleep is essential for healthy physical, emotional and cognitive development, yet it can be difficult to determine a concept of ‘normal sleep’. Sleep patterns differ between individuals and are determined by the interaction between age, developmental milestones; ecological, biological and environmental factors.¹ In addition, defining what is ‘normal sleep’, is influenced by cultural backgrounds and parental expectations and knowledge of sleep behaviours.^{1,2}

History taking and holistic assessments are required to identify sleep behaviours which may be indicative of medical conditions. These may include adenotonsillar hypertrophy, reactive airway disease, gastroesophageal reflux and chronic pain in children, and maternal or child mental health conditions.^{3,4} It is important to consider that variations in sleep can be regarded as normal and healthy, and need not be labelled as a disorder or problematic.²

Whilst there are wide ranges of ‘normal’ individual sleep patterns, recommendations for healthy development have been developed based on population averages. The Australian *Guidelines for healthy growth and development for your child* publication suggest the following 24 hour sleep ranges:

- Newborn infants (0 - 3 months): 14 to 17 hours of good quality sleep
- Infants (4 - 11 months): 12 to 16 hours of good quality sleep including naps
- Toddlers (one to two year olds): 11 to 14 hours of good quality sleep, including naps, with consistent sleep and wake up times

- Pre-schoolers (three to five year olds): 10 to 13 hours of good quality sleep which may include a nap, with consistent sleep and wake up times.⁵

Influences on sleep-wake regulation and sleep states

Sleep-wake regulation and sleep states evolve during the first twelve months of a child's life and continue to mature throughout childhood.^{6,7} Due to the absence of a circadian system, newborn infants typically distribute short sleeps throughout the day and the night, waking for feeding every 1 - 3 hours.^{7,8} Foetal circadian rhythms begins to diminish at around one to two weeks of age and circadian rhythmicity becomes stable by three to four months.¹ Melatonin, cortisol and temperature rhythms all play a role in sleep-wake cycles and develop rapidly in the first six months of life. Melatonin is a hormone released during darkness and suppressed by light and is detectable at six weeks of age, is at very low levels at twelve to sixteen weeks and becomes stable at six months of age.⁸ Cortisol increases blood sugar and metabolism and is higher during the day when there is a greater demand for energy.⁸ At around six weeks of age body temperature increases as early morning waking occurs and later evening sleep coordinates with a decrease in body temperature.⁸ The synergy of these biological rhythms may result in increased predictability with sleep, wake and feeding cycles by around six months of age. Children wake in the night for up to three years of age and this is normal and to be expected.⁹

Sleep states alternate between rapid eye movement (REM or active sleep) and non-rapid eye movement sleep (NREM or non-active sleep) and occur in cycles.⁸ Newborn sleep is described as active sleep which is similar to REM sleep, and non-active sleep which is similar to deep or NREM sleep. Newborns enter sleep cycles through active sleep (REM-like sleep) for the first three to six months of life.⁸ REM sleep is thought to reflect brain development, cognition and behaviour and is characterised by a burst of rapid eye movements, high brain metabolic rate, variable heart rate and muscular activity.^{8,10} REM sleep plays a critical role in providing sensory experiences and influencing the formation of neuronal networks and brain development, which is critical in early life.¹⁰ It is during REM sleep that dreaming and nightmares occur.⁸ Newborn infants transition from 50% of active/REM sleep, to 40% at three to five months and almost to adult levels of 25 - 30% by one year of age.⁸ NREM is considered restful, deep and restorative sleep where the child is observed to be least responsive.⁸ It is during this deep sleep that night terrors, sleep walking and nocturnal enuresis occur.⁸ The time it takes to move through the REM and NREM stages is considered a ultradian sleep cycle and infants typically have a sleep cycle about every 45 - 60 minutes.⁸ When infants wake up after one sleep cycle, they may initially require parental support to commence another cycle. In some instances, sleep associations such as feeding to sleep, holding in arms, safe wrapping and use of dummies may affect moving from one sleep cycle to another. It is the 'joining' of sleep cycles that results in longer sleep durations, which positively impacts awake time and can influence feeding frequency.

Sleep patterns, including circadian, ultradian and biological rhythms change significantly over the first five years of life. Sleep consolidates with increasing age, with longer blocks of sleep occurring at night and naps during the day decrease. The duration of a sleep cycle increases with age, with less REM and more NREM sleep also experienced. Whilst these physiological changes are universal, individual sleep patterns vary, as discussed previously.

Attachment, separation and crying

Infants require parents to be sensitive to their needs and cues, in order to promote secure attachment and emotional wellbeing. The bond between a parent and child allows the child to feel safe and secure to explore and learn, and be welcomed back to the parent for comfort, protection and to organise feelings. In the first few months of life, infant attachment seeking behaviours may include crying, as this alerts the parent that the infant needs help. At times, an infant's crying can be difficult to soothe, which can be distressing for parents. A 'normal' pattern of crying has been described as gradually increasing to a peak at around six to eight weeks of age and generally decreasing around three to four months of age.¹¹ Responsive parenting during these times will help the infant to develop a sense of security.² When a child's crying is sustained, and parents are concerned or unable to soothe their child, a medical assessment may be required to determine a possible cause. For older infants and toddlers, the emergence of object permanence and separation anxiety between 6 - 18 months, may result in difficulties separating from their parents at bedtime and may also result in increased night time wakings.^{2, 8} When parents respond sensitively and promptly, children learn to settle as they become confident that their needs for emotional comfort will be met by their parents.² Most children have a good sense of self around the age of three years and are able to understand and cope with some parental separation, whilst developing skills to self-settle after waking.²

Sleep concerns

Although sleep variations can be normal and expected, these are commonly reported by parents as sleep concerns. Data on the prevalence of infant and child sleep difficulties consists almost entirely of parental reports, suggesting approximately 20% to 30% of infants, toddlers and pre-schoolers in Australia experience sleep problems.^{12, 13} For parents of infants and toddlers, night time waking is the most common concern, with 25% to 50% of children over the age of six months waking during the night.⁹ Bedtime resistance is found in 10% to 15% of toddlers, and 15% to 30% of preschool children have difficulty falling asleep and will wake in the night, and this may even persist into middle childhood and adolescence.⁹ It has been reported that children's sleep behaviours impact their sleep and daytime functioning. This may include crying, irritability and perceived temperament problems; cognitive development; and predisposes children to more accidental injuries and mothers to depression.^{7, 14-16} Whilst insufficient sleep has been associated with adverse health outcomes, excessively long sleep durations may impact on a child's exploration of their physical and social environment and relationships.⁶

The acquisition of new skills has the potential to lead to increased sleep disruptions, often resolving once these skills have been mastered. In addition, parents may find a child's sleep associations can lead to difficulties with settling or resettling to sleep (transitioning from one cycle to the next). For example, feeding and sleeping are closely linked in the newborn period and it is normal for newborns to feed to sleep. However, a toddler or a preschooler who consistently requires feeding (or patting, rocking and carrying) to sleep may be considered demonstrating behaviour outside age appropriate ranges. Other causes or associations of sleep concerns include:

- Infant temperament - parents need to acknowledge that their infant's temperament may be different to their own temperament
- Parental expectations related to lack of knowledge about crying and sleep patterns
- Family stressors and relationship difficulties

- Parental health issues including depression
- Lifestyle factors.²

Controlled crying – Not supported by Child and Adolescent Health Service-Community Health and Western Australian Country Health Service

Controlled crying or controlled comforting, as described on the Raising Children Network website, is often associated with leaving children alone crying, for incremental periods of time before parents re-enter the room and respond to their child. Other sleep training techniques include 'crying it out' or 'extinction crying', where children are left to cry until they fall asleep. The premise of these techniques is to teach infants and children to settle themselves to sleep. These techniques do not meet the child's needs for optimal emotional and psychological wellbeing and may have long term consequences relating to secure attachment.² These techniques may also have an effect of teaching children not to seek out or expect parents to provide comfort and problem solving support.

A study undertaken with 4 - 10 month old infants who participated in sleep training based on controlled crying at a parenting centre, demonstrated varying infant cortisol levels at several points in time. When the infants showed signs of distress, they had elevated cortisol levels that synchronised with their mother's. On day three of the sleep training, the infants cried less and no longer exhibited distress cues, yet their cortisol levels remained elevated. In the absence of infant distress cues, the mothers' cortisol levels decreased. However, although the infants appeared outwardly calm, their cortisol levels remained elevated, indicating they were inwardly still experiencing distress.²

Care planning

Community health nurses are well placed to assist parents with understanding their child's sleep and sleep behaviours and to identify any difficulties that may impact on a parent's capacity to respond to their child. Nurses are encouraged to be aware of the boundaries of their professional practice and the availability of local resources for timely interventions and/or referrals. For example, *Universal Plus* contacts can be offered to support clients of all ages with timely and appropriate interventions, or *Let's Sleep* groups for families with children aged 6 - 12 months. Nurses may like to refer to the *Early Parenting Groups: A facilitator's guide* for information on sleep, settling, infant cues, development, secure attachment, sensitive parenting and adjustment to parenting.

Key Points

- Defining a concept of 'normal' sleep can be difficult due to wide individual variations. These variations need not be labelled as problematic or as a disorder, unless associated with medical or mental health disorders, or of concern to parents.
- The synergy of biological rhythms may result in increased predictability with sleep, wake and feeding cycles at around six months of age.
- Children around the age of three years have a good sense of self, and are able to understand and cope with some parental separation, whilst developing skills to self-settle after waking.
- Sleep and settling intervention strategies that consider the child's mental health and emphasise co-regulation, encourage self-regulation through the shared management of emotions.
- Nurses will work using a family partnership approach and consider the strengths of parents.

- Community Health and the Australian Association for Infant Mental Health do not support sleep training techniques such as controlled crying, as they are not consistent with the development of a secure attachment and child wellbeing.
- Western Australian (WA) Health employees are required to promote universal safe infant sleeping messages, as outlined in the Policy Frameworks *Safe Infant Sleeping Policy* and WA Department of Health *Safe Infant Sleeping e-Learning Package*.

Process

Steps	Additional Information
<p>1. Anticipatory guidance</p> <ul style="list-style-type: none"> • Provide parents with age appropriate information and resources on: <ul style="list-style-type: none"> ○ Secure attachment and sensitive parenting ○ Breastfeeding, infant formula feeding and nutrition ○ Sleep overview ○ Feeding, sleeping and wakeful behaviours ○ Cues - tired signs and body language. Whilst this is not an exhaustive list, the following are examples of engagement and disengagement cues : <ul style="list-style-type: none"> ○ Arching back ○ Clenched fists ○ Clumsiness ○ Crying ○ Frowning ○ Jerky movements or startling ○ Gaze aversion or difficulties with focussing ○ Grizzling ○ Rubbing eyes or ears ○ Turning head away ○ Sucking fingers as a way of self soothing to sleep ○ Yawning ○ Crying patterns ○ Age appropriate child development including emotional development 	<p>Parents are encouraged to respond to their children responsively and sensitively, particularly in the early months when secure attachment is a priority. Nurses assist parents to understand that children depend on their parents for protection, in order to feel safe and secure. <i>Sensitive Parenting</i> and <i>Circle of Security</i> are useful resources for nurses who have undertaken training.</p> <p>Infants need to feed often as this helps to regulate sleep, hormones and neurotransmitters. Assessing breastfeeding efficiency is a priority in the early weeks and timely intervention and referral is required for dyads experiencing feeding difficulties. For additional information, refer to the <i>Breastfeeding deviation from normal</i> protocol and the <i>Breastfeeding Assessment Guide</i>.</p> <p>Discuss with parents the key points of sleep, reinforcing that infants are individuals and there are no set ages for going to sleep or linking sleep cycles together, independently. Most infants will learn these skills with help sometime during their first years of life. Encourage parents to recognise when their child needs help and to sensitively respond to them. Exposure to the natural cycles of light and dark and other information from the world around them, such as parents talking in a soft, slow and quiet voice at night may also be beneficial.</p> <p>Discuss with parents age appropriate feeding, sleeping and wakeful patterns, to ensure realistic expectations. Discuss crying patterns and how to recognise and respond to tired signs. For additional information refer to relevant topics in the <i>Early Parenting Groups: A facilitator's guide</i> and/or the Ngala website.</p> <p>Acquiring new developmental skills or new</p>

	<p>experiences may impact on a child's sleep. For example:</p> <ul style="list-style-type: none"> • An infant practicing rolling over and bumping into the sides of the bassinet may result in them waking themselves up • A toddler pulling to stand in the cot may not be able to initially, independently lie down again • A pre-schooler experiencing high levels of stimulation or separation from parents, while attending kindergarten in the day may have difficulties with settling to sleep.
<p>2. Assessment</p> <p>Identifying a sleep concern by assessing the child's behaviour to determine patterns and recognise deviations outside age appropriate ranges.</p> <p>However, not all children with behaviour that is outside age appropriate ranges have sleeping problems. If the child is healthy and happy and the parents do not have any concerns, then provide anticipatory developmental guidance.</p> <p>In addition, not all parent reports of sleeping problems are deviations from normal. In these instances, staff will provide relevant information to normalise child development, whilst acknowledging the concerns of parents.</p>	<p>Encourage parents to keep a diary of the child's feeding, sleeping and wakeful patterns to help determine the child's sleeping behaviours.</p> <p>To assist with a holistic assessment of clients the following factors need to be considered:</p> <ul style="list-style-type: none"> • Emotional and physical health of parents and children • Child parent attachment • Child development • Environmental and lifestyle factors • Support networks.
<p>3. Intervention strategies</p> <ul style="list-style-type: none"> • It is important that any intervention strategies implemented will not compromise the child's developmental and emotional needs. • Support parents to develop a plan which will involve them doing something different to address the concern. • When making changes to how infants and children expect to be settled, provide them with short experiences of the new settling strategy, and allow them to become familiar with this over 	<p>A bedtime sleeping pattern (predictable pattern of events) needs to be appropriate and consistent for the child's age, to promote attachment and to be flexible enough to be used in different settings.</p> <ul style="list-style-type: none"> • Prepare a safe sleep environment • Recognise and respond to early tired signs • Encourage parents to talk to their child about what is happening • Parents are encouraged to observe their child's behaviour in response to these 'changes' (strategies) and then plan how they will continue to respond to their child. <p>Newborn infants require parents help to settle to sleep. This may include cuddling the infant</p>

<p>a period of time.</p> <ul style="list-style-type: none"> • General principles: <ul style="list-style-type: none"> ○ Consider the child's current sleep associations ○ Consider realistic age appropriate goals ○ Consider the child's emotional health ○ Consider the child's sensory preferences ○ Ensure children are healthy and feeding efficiently ○ Consider safety and SUDI guidelines ○ Ensure parents have the capacity to make changes ○ Develop a plan in consultation with parents ○ Consider offering additional child health contacts to provide additional client support. 	<p>until they are settled, drowsy and/or asleep (soothing in arms)¹⁷ and using soft 'shh' sounds with gentle rhythmic patting, rocking or stroking; singing or safe wrapping. The repetition of soothing sounds and actions may occur in the parents' arms and/or once the infant has been placed supine in the bassinet or cot. Infants may need assistance to resettle, if only one sleep cycle has been achieved. The aim of resettling is, over time, to link another sleep cycle onto the first cycle, to achieve a block of sleep.</p> <p>Infants benefit from a bedtime pattern that allows for a period of 'winding down' before going to sleep. Following a feed or play (depending on day or night) parents can signal to their infant that bedtime is approaching by bathing, massaging, reading a quiet story, singing a song, giving cuddles, using phrases that message sleep time, or giving a goodnight kiss. Place infants supine in the cot 'awake and calm' or alternatively in a 'drowsy state'. Comfort infants with gentle 'shh' sounds with gentle rhythmic patting, rocking, or stroking (hands on settling)¹⁷ until they are calm, drowsy or asleep. If infants become or stay distressed, cuddle until they are calm, drowsy or asleep before putting them back in the cot, and stay with the infant until they are asleep. Staying with the infant is only required until sleeping patterns establish.</p> <p>Toddlers require settling strategies that provide opportunities for them to discover their own way of going to sleep, whilst receiving parental support that is responsive and reassuring. Parents can prepare their child for the transition to bedtime by practicing a bedtime pattern which follows a sequence of events. This may include cleaning teeth, reading a quiet story, singing a song, giving cuddles, using phrases that message sleep time, or giving a goodnight kiss. Place the toddler in the cot or bed 'awake and calm'. Toddlers may be comforted using strategies as described for infants. In addition, parents may choose to move away from the cot or bed or leave the room (when their child is calm). If children become distressed use strategies discussed previously, acknowledging that these strategies may need to be repeated several times, until the child falls asleep. If the</p>
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	<p>toddler is unable to fall asleep for a daytime sleep, parents may choose to get their toddler up and try again later. Toddlers may require 'rest and quiet time', as their daytime sleeping duration and/or frequency decreases.</p> <p>Preschoolers are learning to socialise with other children, learning new rules, taking direction from adults such as kindergarten teachers and are learning to be separated from their parents. They need to be well rested to help them manage and enjoy these new experiences. Preschoolers benefit from parents supporting them to transition to sleep, with bedtime patterns that are consistent and reassuring. Some examples include discussing with pre-schoolers that bedtime is approaching, having consistent bed times (and waking up times), putting on pyjamas, cleaning teeth, reading a book, giving cuddles, using phrases that message sleep time or giving a goodnight kiss. Avoid boisterous play, television, computers and screen devices before bedtime. The <i>tips to support healthy choices (2 – 5 years)</i> publication provides additional information.</p> <p>Night terrors occur during Non-REM sleep and children can become quite agitated, may sit up or walk around with their eyes open. Avoid waking the child at this time and ensure the child's safety. Nightmares are frightening dreams most commonly occurring in the second half of the night, when REM sleep takes place. Parents are encouraged to comfort and provide reassurance to their child experiencing nightmares.</p>
<p>4. Care planning</p> <p>Respond to identified client needs by planning appropriate additional contacts and/or referral to relevant groups, services, programs and health professionals where available.</p>	<p>Clients requiring additional support can be offered:</p> <ul style="list-style-type: none"> • <i>Universal Plus</i> contacts allowing individual opportunities to support families in a timely manner with age-appropriate interventions • The <i>Universal Plus Let's Sleep program</i> providing support for parents of children aged 6 to 12 months in a group setting. <p>Provide clients with the following community service information, as required:</p> <ul style="list-style-type: none"> • Ngala provides a number of services for parents with children from birth to 18 years including: website information, telephone

	<p>Parenting Line (7 days a week), education sessions, consultations, day stay and extended stay programs for parents whose children may be experiencing sleep problems. Phone: 9368 9368 or 1800 111 546 (country callers) or visit the website for more information.</p> <ul style="list-style-type: none"> • Australian Breastfeeding Association: website and telephone Helpline (24 hours every day) 1800 686 268. • Emergency helpline numbers including: <ul style="list-style-type: none"> ○ Crisis Care – 9223 1111 or 1800 199 008 ○ Beyond Blue – 1300 224 636
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Clinical handover

Nurses will exchange information between health professionals and agencies according to local protocols and by adhering to the WA Health Clinical Handover Policy (iSoBAR).

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Related internal policies, procedures and guidelines

The following documents can be accessed in the Community Health Manual via the [HealthPoint](#) link or the [Internet](#) link

Breastfeeding deviations from normal

Related internal resources and forms

The following resources and forms can be accessed from the [HealthPoint CACH Intranet](#) link


Breastfeeding Assessment Guide

Early Parenting Groups: A Facilitator's guide

Healthy tips to support healthy choices (2 – 5 years)
How children develop
Let's sleep 6 – 12 months

Useful external resources
Australian Association for Infant Mental Health. Controlled crying position paper . Australia. 2013.
The Australian 24-Hour Movement Guidelines for the Early Years (Birth to 5 years): Guidelines for healthy growth and development for your child publication
Australian Breastfeeding Association
Circle of Security
Ngala
Red Nose
WA Health Policy Frameworks Safe Infant Sleeping Policy
WA Health Safe Infant Sleeping e-Learning Package – Accessed via the Community Health Learning and Development, self-directed landing page.

This document can be made available in alternative formats on request for a person with a disability.

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